

Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

1. (currently amended) An information reproducing method comprising the steps of:

reading information from an information medium that is rotated;
and

~~determining~~ adjusting a rotation velocity of the information medium ~~on the basis of~~ according to a data transfer rate based on a specification of a read request.

2. (original) An information reproducing method comprising the steps of:

reading information from an information medium that is rotated;
and

measuring an average transfer rate in data read and lowering a rotation velocity of the information medium if the average transfer rate measured is equal to or lower than a predetermined threshold value.

3. (original) An information reproducing method comprising the steps of:

reading information from an information medium that is rotated;
and

measuring an average transfer rate in data read and raising a rotation velocity of the information medium if the average transfer

rate measured is greater than a predetermined threshold value.

~~3~~ 4. (original) An information reproducing method comprising the steps of:

reading information from an information medium that is rotated;
measuring an average transfer rate in data read and raising a rotation velocity of the information medium if the average transfer rate measured is greater than a predetermined threshold value; and

lowering the rotation velocity if the average transfer rate is equal to or lower than the predetermined threshold value.

~~3~~ 5. (previously presented) The information reproducing method as claimed in Claim 2, further comprising the steps of:

monitoring whether the read request is issued; and
restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

~~4~~ 6. (previously presented) The information reproducing method as claimed in Claim 2, further comprising the steps of:

monitoring a read address of the read request; and
restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

~~5~~ 7. (previously presented) The information reproducing method as claimed in Claim 2, further comprising the steps of:

determining validity of the average transfer rate on the basis of

average transfer rates obtained a number of times of measurement; and
validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

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8. (original) The information reproducing method as claimed in claim 4, wherein a first threshold value which is one of said predetermined threshold value and is used for raising the rotation velocity of the information medium is greater than a second threshold value which is another one of said predetermined threshold value and is used for lowering the rotation velocity of the information medium.

9. (previously presented) The information reproducing method as claimed in Claim 2, further comprising the steps of:

temporarily storing information read from the information medium in a cache memory;

pre-reading information if a space is available in the cache memory; and

causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

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10. (currently amended) An information reproducing apparatus comprising:

a motor rotating an information medium;

an optical pickup reading information from the information

medium; and

a part ~~determining~~ adapted to adjust a rotation velocity of the information medium ~~on the basis of~~ according to a data transfer rate based on a specification of a read request.

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11. (original) An information reproducing apparatus comprising:
a motor rotating an information medium;
an optical pickup reading information from the information medium;

a measuring part measuring an average transfer rate in data read;
a comparing part comparing the average transfer rate measured with a predetermined threshold value; and

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a rotation velocity control part lowering a rotation velocity of the information medium by the motor if a result of comparison shows that the average transfer rate measured is equal to or lower than a predetermined threshold value.

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12. (original) An information reproducing apparatus comprising:
a motor rotating an information medium;
an optical pickup reading information from the information medium;

a measuring part measuring an average transfer rate in data read;
a comparing part comparing the average transfer rate measured with a predetermined threshold value; and

a rotation velocity control part raising a rotation velocity of the information medium by the motor if a result of comparison shows that the average transfer rate measured exceeds a predetermined

threshold value.

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13. (original) An information reproducing apparatus comprising:
a motor rotating an information medium;
an optical pickup reading information from the information medium;
a measuring part measuring an average transfer rate in data read;
a comparing part comparing the average transfer rate measured with a predetermined threshold value; and
a rotation velocity control part lowering a rotation velocity of the information medium by the motor if a result of comparison shows that the average transfer rate measured is equal to or lower than a predetermined threshold value and raising the rotation velocity if the result of comparison shows the average transfer rate measured exceeds the predetermined threshold value.

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14. (previously presented) The information reproducing apparatus as claimed in Claim 11, further comprising:

a monitoring part monitoring whether the read request is issued;
and

a restarting part restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

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15. (previously presented) The information reproducing apparatus as claimed in Claim 11, further comprising:

a monitoring part monitoring a read address of the read request;

and

a restarting part restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

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~~16~~. (previously presented) The information reproducing apparatus as claimed in Claim ~~11~~¹⁹, further comprising:

a determining part determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

a validating part validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

B' ³¹
~~17~~. (original) The information reproducing apparatus as claimed in claim ~~13~~³⁰, wherein a first threshold value which is one of said predetermined threshold value and is used for raising the rotation velocity of the information medium is greater than a second threshold value which is another one of said predetermined threshold value and is used for lowering the rotation velocity of the information medium.

²⁴
~~18~~. (previously presented) The information reproducing apparatus as claimed in Claim ~~11~~¹⁹, further comprising:

a storing part temporarily storing information read from the information medium in a cache memory;

a pre-reading part pre-reading information if a space is available in the cache memory; and

a part causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

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19. (previously presented) The information reproducing method as claimed in Claim 3, further comprising the steps of:

monitoring whether the read request is issued; and

restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

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20. (previously presented) The information reproducing method as claimed in Claim 3, further comprising the steps of:

monitoring a read address of the read request; and

restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

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21. (previously presented) The information reproducing method as claimed in Claim 3, further comprising the steps of:

determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

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22. (previously presented) The information reproducing method

as claimed in Claim ⁷~~3~~, further comprising the steps of:

temporarily storing information read from the information medium in a cache memory;

pre-reading information if a space is available in the cache memory; and

causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

¹⁴~~23~~. (previously presented) The information reproducing method as claimed in Claim ~~2~~⁷, further comprising the steps of:

monitoring whether the read request is issued; and

restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

¹⁵~~24~~. (previously presented) The information reproducing method as claimed in Claim ~~4~~¹², further comprising the steps of:

monitoring a read address of the read request; and

restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

¹⁶~~25~~. (previously presented) The information reproducing method as claimed in Claim ~~4~~¹², further comprising the steps of:

determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

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~~26~~. (previously presented) The information reproducing method as claimed in Claim ¹²~~4~~, further comprising the steps of:

temporarily storing information read from the information medium in a cache memory;

pre-reading information if a space is available in the cache memory; and

causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

²⁰
²¹~~21~~. (previously presented) The information reproducing apparatus as claimed in Claim ²⁵~~12~~, further comprising:

a monitoring part monitoring whether the read request is issued; and

a restarting part restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

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²⁸~~28~~. (previously presented) The information reproducing apparatus as claimed in Claim ²⁵~~12~~, further comprising:

a monitoring part monitoring a read address of the read request; and

a restarting part restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

²⁸
~~28~~. (previously presented) The information reproducing apparatus as claimed in Claim ²⁵~~12~~, further comprising:

a determining part determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

a validating part validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

b' ²⁹
~~30~~. (previously presented) The information reproducing apparatus as claimed in Claim ²⁵~~12~~, further comprising:

a storing part temporarily storing information read from the information medium in a cache memory;

a pre-reading part pre-reading information if a space is available in the cache memory; and

a part causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

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~~31~~. (previously presented) The information reproducing apparatus as claimed in Claim ³⁰~~13~~, further comprising:

a monitoring part monitoring whether the read request is issued;

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and

a restarting part restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

³³
32. (previously presented) The information reproducing apparatus as claimed in Claim 1³⁰, further comprising:

a monitoring part monitoring a read address of the read request;
and

a restarting part restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

B' ³⁴
33. (previously presented) The information reproducing apparatus as claimed in Claim 1³⁰, further comprising:

a determining part determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

a validating part validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

³⁵
34. (previously presented) The information reproducing apparatus as claimed in Claim 1³⁰, further comprising:

a storing part temporarily storing information read from the information medium in a cache memory;

a pre-reading part pre-reading information if a space is

available in the cache memory; and

a part causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

²¹35. (previously presented) The information reproducing apparatus as claimed in Claim ²⁰14, further comprising:

a storing part temporarily storing information read from the information medium in a cache memory;

b¹ a pre-reading part pre-reading information if a space is available in the cache memory; and

a part causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

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